

REMARKS

Claims 1-2, 6-12 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Toyryla et al. (U.S. Patent Number 5,465,391, hereinafter "Toyryla") in view of Dailey et al. (U.S. Patent Number 6,377,560, hereinafter "Dailey"), claims 3 and 4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Toyryla in view of Daily and Madour et al. (U.S. Patent Number 6,108,518, hereinafter "Madour"), and claim 5 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Toyryla in view of Daily and Bhat et al. (U.S. Patent Number 6,075,994, hereinafter "Bhat"), and claim 13 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Toyryla in view of Daily and Raith et al. (U.S. Patent Number 6,331,971, hereinafter "Raith"). The applicant respectfully disagrees with these rejections and requests reconsideration.

Regarding the rejection of independent claims 1, 6, 7 and 14, the Examiner cites Toyryla and Dailey. However, the Examiner indicates that Toyryla does not specifically disclose the claim language of claim 1 that reads "monitoring an inbound access channel for page responses to the broadcast page; when no page responses are received within a period of time, ceasing to transmit the dispatch call via the traffic channel; and deallocating the traffic channel," nor does Toyryla disclose the claim language of claim 6 that reads, "monitor an inbound access channel for page responses to the broadcast page; and adapted to deallocate the traffic channel and to instruct the transmitter to cease transmitting the dispatch call via the traffic channel when no page responses are received within a period of time." The Examiner cites Toyryla column 4, lines 24-35 to support the assertion that "Toyryla discloses base stations allocating channels and separately paging mobiles that join the group call where if no mobile responded logically the channel would be deallocated." Toyryla column 4, lines 16-53 reads (emphasis added):

The method can be illustrated by means of an example pertaining to the FIGURE. Let us further assume that the base station BS1 resides within the predetermined operation area of a given group and the other base station BS2 outside it. It is still further assumed that a group call is set up in the overlapping area C' of

the coverage areas C1 and C2, and the mobile radio MS2 utilises the base station BS1, and MS4 the base station BS2. In accordance with the invention, the base station BS1 allocates a traffic channel to the group call and transmits a group call paging message containing the group call number and an indication of the allocated traffic channel. MS2 receives the group call paging message transmitted by BS1 and joins the group call by switching to the traffic channel in question. The base station BS2 does not allocate a traffic channel but transmits a group call paging message containing a group call number and an instruction to switch to the traffic channel allocated by BS1. MS4 receives the group call paging message transmitted by BS2 and joins the group call by switching to the traffic channel of BS1. The invention thus ensures that all mobile phones just barely within the range of audibility of BS1 are included regardless of whether they are initially in contact with BS1 or BS2.

The only disadvantage in the method of the invention is that the mobile radios of the group beyond the range of audibility of BS1 (the coverage area of the group call), such as MS5, may receive the group call paging message transmitted by BS2 instructing to switch to the traffic channel of BS2. A group call is not, however, usually possible for these mobile radios. Depending on the operation of the mobile radios, a weak connection is established, or a connection on which nothing can be heard (or mere noise), or the mobile radio releases the connection automatically on detecting that the requirements for a connection are not satisfied. All the above-mentioned mobile radios may be used in connection with the invention but the last mentioned is most preferred. The user receives an indication that a group call has been attempted but he himself is outside the coverage area.

The applicants are unable to find support for any suggestion in Toyryla for the statement that "if no mobile responded logically the channel would be deallocated." Toyryla seems to suggest in the cited passage that the coverage area of the group call is predefined. Moreover, nowhere does Toyryla opine as to under what conditions would any channel deallocation occur. Thus, the applicants respectfully disagree with the Examiner's assertion that "Toyryla discloses base stations allocating channels and separately paging mobiles that join the group call where if no mobile responded logically the channel would be deallocated."

For the portions of claims 1 and 6 that Toyryla does not teach, the Examiner relies on Dailey, citing column 4, lines 37-41 and column 4, lines 9-41. Dailey column 4, lines 9-41 reads:

Each base station 30, 32, 34, 36 and 38 allocates a voice channel in response to the group call and sends an assignment message on the control channel. Arrows 70, 72, 74, 76 and 78 represent such channels. In this manner, paging messages are not sent through all base stations in the local area, which saves resources and time. A timer is then set and, in decision diamond 208, a determination is made as to which base stations received acknowledgements from group members on the voice channel. In the example of FIG. 1, group members 18 and 20 in local area 50 each send an acknowledgement to base stations 34 and 30 respectively. Group member 16 sends an acknowledgement to base station 38 in local area 52. Processing moves to action box 210 where channels 72 and 76 for the base stations that did not receive an acknowledgement (base stations 32 and 36) are deallocated. In action box 212, the base stations 30, 34 and 38 acknowledge the presence of group members in their respective cell. The call is then completed to the group members that have acknowledged, in action box 214.

Adding a group call feature to an existing wireless network requires fast call setup, especially for critical communications such as public safety. The present invention skips the paging step of normal call setup and immediately allocates a voice channel for the group call on any cell that might contain a group member. Group members recognize a group identification on the channel and indicate their presence by transmitting a short burst of information on the channel back to the base station. Any base station that has not received an acknowledgement from a group member within a predetermined period of time drops the channel, freeing it for another call. This novel approach allows fast group call setup and minimizes wasted resources.

However, Dailey does not teach monitoring an **inbound access channel for page responses**, as claimed. Rather, Dailey teaches away from the claimed invention. Dailey teaches skipping "the paging step of normal call setup." Furthermore, Dailey teaches monitoring the allocated voice channels for acknowledgments, not the **inbound access channel** and not for **page responses**. In CDMA systems (particularly in those at the time of the filing of this application), it is well-known that page responses are sent on inbound access channels prior to a channel assignment of an allocated voice channel. The system wants to know where the mobile is before assigning channels. Therefore, what Dailey is teaching is substantially different than monitoring an **inbound access channel for page responses**, as claimed.

Again, Dailey teaches altogether skipping "the paging step of normal call setup." This is made even more clear when other portions of Dailey are considered. Dailey column 1, lines 21-39 reads (emphasis added):

In current call setup, a mobile switching center receives a call for a mobile station and queries a home location register for that mobile station's current location. The home location register reports the local area (a group of contiguous cells in the wireless network) in which the mobile station last registered. Since the mobile switching center knows only the approximate location of the mobile station, it causes all of the base stations in the local area to transmit a paging message on a paging channel to determine the exact location of the mobile station. When a mobile station receives the page, it responds to the nearest base station. The base station notifies the mobile switching center, which routes the call to the base station to be delivered to the mobile station.

While the above-described call setup is relatively efficient for a one- to-one call, repeating all of the steps for each member of a group may take considerable time and be very cumbersome. Paging for and locating all of the group members individually may cause heavy message traffic and require many system resources.

Dailey column 5, line 59 – column 6 line 3 reads (emphasis added):

It will therefore be apparent that this invention makes it possible to economically and simply provide a group call setup without sending multiple paging messages and acknowledgement messages as in

normal call setup. Consequently, the need for individual resources for each mobile station is avoided. Further, since base stations that do not receive an acknowledgement deallocate the channels, further resources are conserved. It will further be appreciated that the invention may be added to existing wireless networks with little additional hardware and software. Further, this system could be implemented in a trunked radio network with little or no modification.

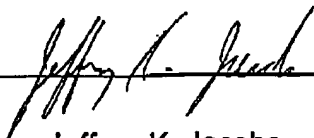
Thus, Dailey teaches away from using the very paging / page response mechanisms that claims 1 and 6 explicitly recite.

Claim 7 recites (emphasis added) "transmitting a **page response** to the **broadcast page subsequent** to beginning to receive the dispatch call" and claim 14 recites (emphasis added) "a processor...adapted to instruct the receiver to begin to receive the dispatch call via the traffic channel and adapted to **subsequently** instruct the transmitter to transmit a **page response** to the **broadcast page**." As discussed previously, Dailey teaches away from using the very paging / page response mechanisms. Moreover, these claims recite transmitting a page response after beginning to receive the dispatch call.

Since none of the references cited, either independently or in combination, teach all of the limitations of base claims 1, 6, 7 or 14, or therefore, all the limitations of their respective dependent claims, the applicants assert that neither anticipation nor a prima facie case for obviousness has been shown. No remaining grounds for rejection or objection being given, the applicant now respectfully submits that the claims in their present form are patentable over the prior art of record, and are in condition for allowance. As a result, allowance and issuance of this case is earnestly solicited.

No other grounds for rejection or objection being given, the applicant now respectfully submits that the claims in their present form are patentable over the prior art of record, and are in condition for allowance. As a result, allowance of this case and early passage to issue is earnestly solicited. The Examiner is invited to contact the undersigned, if such communication would advance the prosecution of the present application. Lastly, please charge any additional fees (including extension of time fees) or credit overpayment to Deposit Account No. 502117 -- Motorola, Inc.

Respectfully submitted,
M. Needham et al.

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